THE ARCHITECT'S ANGLE

John W. Baumgarten Architect, P.C.

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Do You Know That…?

- There are tax credits, grants and rebates available from New York State and local Utility Companies for energy efficiency projects.
- John W. Baumgarten Architect, P.C. is actively working with many of their Health Care clients to improve their facility's energy efficiency and curb appeal through façade upgrades.

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Is Your Building Comfortable In Its Skin?

Many of our client's buildings are faced with the problem of aging exterior wall systems that are allowing moisture to "leak-in" and energy dollars to "leak-out".

By undertaking a façade upgrade, facilities not only improve their infrastructure and energy efficiency, they also improve their curb appeal.

The majority of health facilities built in the last 30 years have masonry facades consisting of brick exterior and concrete block back-up walls. Since many of these buildings were built prior to the advent of today's more stringent energy codes, their exterior walls have minimum insulation and have "low-tech" windows with high air infiltration rates and low solar reflectance rates.

Older brick facades tend to have similar problems mostly caused by moisture penetration from failed flashing and caulking joints. If water migration and the resulting impact has progressed into structural damage, then these issues must be corrected prior to any re-cladding of the façade.

In selecting a façade re-cladding system, we most often favor an exterior insulation and finish system or EIFS as it is generically known. EIFS is favored for its design flexibility, energy efficiency and relative cost.

EIFS was first developed in Europe and started to become popular in the United States during the 1980s. As the "S" in EIFS states, it is a cladding system with a cementitious finish coat applied over a rigid vinyl mesh and high density foam insulation board. The finish coat has the appearance of conventional cement stucco but the combination of the flexible supporting vinyl mesh and an acrylic admixture make it less susceptible to the cracking and maintenance problems usually associated with stucco.

The rigid foam board, being applied on the exterior side of the exterior wall is referred to as outsulation and can significantly improve the overall thermal performance of the wall system. The thickness of the insulation can be varied to create different architectural effects such as quoins, reveals and moldings.

In most instances, it does not make sense to reclad a façade and reap the benefits of energy efficiency while leaving old, inefficient windows in place. Additionally, most EIFS manufacturers will limit their warranty significantly if the windows are not replaced. This is the case because in removing windows, the necessary flashing membrane can now be run behind the window frame providing superior protection against moisture penetration.

Some of our clients have chosen to "phase-in" façade upgrade projects as part of an overall energy efficiency strategy. Other elements include roof replacements, replacing through-wall incremental units and installing co-generation and building management systems. The Health Department continues to look favorably upon these "Limited Review" energy projects because they have the dual effects of reducing annual building operating costs and upgrading ageing physical plants.

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John W. Baumgarten Architect, P.C.: Recent EIFS Projects: